

Effect Of Audit Quality on Corporate Tax Avoidance of Listed Non-Financial Firms in Nigeria

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ABSTRACT

This paper investigated the effect of audit quality on corporate tax avoidance of listed non-financial firms in Nigeria. A correlational research design was adopted using secondary data collected from annual reports and accounts of 56 listed non-financial firms in Nigeria for the period of ten (10) years (2014-2023). The data were analysed using descriptive statistics to provide summary statistics for the variables and correlation analysis to determine if there is a correlation between the dependent and explanatory variables of the study. Multiple regression was used to test the study hypotheses using STATA. The findings indicate that both audit tenure and auditor size are negatively and significantly associated with corporate tax avoidance, whereas audit fees exhibit a significant positive relationship with corporate tax avoidance. Based on the findings of the study recommends that the Financial Reporting Council of Nigeria (FRCN) and the Securities and Exchange Commission (SEC) should enforce mandatory auditor rotation rules by limiting auditor tenure to 5 to 7 years and also introduce a cooling-off period of 10 to 12 years before the same audit firm or its network members can be reappointed. Additionally, the Financial Reporting Council of Nigeria (FRCN) should enforce stringent rules concerning auditor independence. Audit committees should be required to evaluate the nature of non-audit services offered by the external auditor to prevent auditors from simultaneously auditing and designing tax avoidance schemes for their clients. The study also recommends that the management of listed non-financial firms should consider audit fees as a strategic investment rather than a cost to minimise. Higher audit fees can increase stakeholder trust, improve compliance, and lower the risk of regulatory penalties.

Keywords: Corporate Tax Avoidance, Audit Quality, Audit Tenure, Audit Fees, Listed Non-Financial Firms.

INTRODUCTION

Over the past few decades, tax avoidance has become an area of interest and a subject of criticism for governments as well as advocacy groups around the world. Even though there is a clear dividing line between tax evasion and tax avoidance as the former is illegal and is done with a “deceitful and/or fraudulent” intent while the latter is legal, the issue of concern for governments and international organizations is the amount of revenue lost every year due to tax avoidance activities. For instance, according to AU/ECA (2015), an estimated \$50 Billion or more is lost as a result of Illicit Financial Flows (IFF) by African countries each year, and Nigeria makes up the majority of IFFs in West Africa (up to 79 percent of the west African total). IFFs in Africa take several forms, including abusive transfer pricing, trade mispricing, and trade misinvoicing all for the purpose of aggressive tax avoidance.

Apart from the concerns about the amount of income lost, the legal versus illegal lens for tax avoidance has also been subject to intense debate. Several studies, such as Schoeman (2015), Abdelmoula et al. (2022), and Sugiyanti et al. (2023), while acknowledging the legality of tax avoidance, argue that its legality does not necessarily make it ethically and morally acceptable. This is because tax avoidance can be seen as a form of exploitation, where individuals or corporations use legal loopholes or creative accounting to minimize their tax liability without contributing fairly to the public purse. Tax avoidance, therefore, represents a risk to tax revenues and tax fairness, potentially undermining taxpayers' voluntary compliance.

Furthermore, the accuracy of financial statements can be influenced by audit quality, which directly impacts a company's tax avoidance practices. For instance, Dhaliwal *et al.* (2004) demonstrated that auditors specializing in taxation have a greater ability to evaluate the accuracy of tax-related items incorporated in financial estimates provided to shareholders and analysts. This advantage stems from an extensive understanding and awareness of how organisations utilise tax expenditure as a means of tax avoidance. Therefore, it has been demonstrated that the proficiency of an auditor can be regarded as a significant determinant in assessing the extent of tax avoidance. Research has shown that higher-quality audits are associated with improved financial reporting quality, including reduced tax avoidance (Graham *et al.*, 2014). Audit standards suggest that achieving audit quality involves issuing the "appropriate" audit report on the client's adherence to generally accepted accounting principles. Nevertheless, according to Bonner (2008), the concept of audit quality is intricate and cannot be easily defined. In his study, Francis (2011) discussed the varying levels of audit quality, ranging from low to high. He emphasised that the quality of audits can be influenced by various factors, including audit inputs, processes, firms, and audit outcomes.

Audit tenure is the duration for which an auditor has been rendering services to a particular client or company. It is an essential element in auditing that can significantly influence the quality of the audit. While some studies argued that the length of time auditors serve in their role has a negative impact on the quality of the audit, others contend that there are advantages to retaining the services of the same audit firm for an extended period. Extended audit tenure allows the audit firm to better understand the client's business and surroundings, simplifying the audit procedure. According to Salehi *et al.* (2020), the longer the working relationship between an auditor and a client, the more auditors can help clients reduce tax expenses. In addition, they contended that companies preferred long-term relationships with auditors so that auditors could provide appropriate mechanisms to reduce tax expenses. However, other studies have shown that longer auditor tenure is associated with a decrease in tax avoidance practices by companies. Frey (2017) suggests that the ETR might rise in proportion to the length of time an auditor has audited a business.

Auditor size, which is whether the company is audited by a big four is also another popular measure of audit quality. Previous studies have revealed that the bigger the auditor size, the higher the audit quality. Given their size and access to resources and technology, as well as the fact that they have competent skilled, and well-trained staff, Big Four auditors are expected to conduct higher-quality audits (Rajgopal *et al.*, 2021). Some studies indicate that Big Four audit firms are associated with lower levels of tax avoidance. For example, Rizqia and Lastiati (2021) suggested that businesses audited by one of the "big four" public accounting firms often have excellent audit quality, which reduces the likelihood that they would avoid tax. Similarly, Hanny and Niandari (2018) also asserted that firms audited by the Big Four accounting firms have a lower tendency to engage in tax avoidance than firms audited by non-Big Four accounting firms. This means that the more qualified a firm's auditors are, the less the firm engages in profit manipulation and tax avoidance schemes. However, Elbra *et al.* (2020) contended that the Big Four audit firms, as well as other professional services firms, play an important role in encouraging and supporting corporate tax liabilities. avoidance by offering services that assist companies in reducing their tax liabilities. This might be accomplished by using complex tax structures, transfer pricing tactics, and other aggressive tax planning strategies.

There has been prior research on the relationship between audit fees and corporate tax avoidance. The findings revealed that higher audit fees are often associated with higher levels of corporate tax avoidance. This is because auditors may be less inclined to challenge aggressive tax planning or report tax avoidance if they are paid more by the company. Furthermore, audit fees are the primary source of revenue for audit firms. It is unlikely that an auditor's attestation would not be influenced by economic interests. The focus of the discussion is whether auditors will consent or help clients engage in tax avoidance strategies in exchange for financial consideration. The scholars carefully assess the potential behavior of auditors about their client's financial statements, focusing specifically on the influence of economic dependence (Lee & Kao, 2018).

Focusing on the non-financial sector of the Nigerian economy, the non-financial firms are crucial to the growth of the Nigerian economy, playing a critical role in various sectors such as manufacturing, agriculture, telecommunications, and real estate. These sectors contribute significantly to the nation's Gross Domestic Product. Notably, telecommunications have experienced significant recent growth, becoming a major contributor

to the Nigerian economy. Similarly, the real estate sector has also seen substantial growth. However, this growth has been accompanied by concerns about tax compliance within the industry. Jung (2023) suggests that the sector's reliance on cash-based transactions and informal practices may make it vulnerable to tax avoidance.

Tax revenue represents a crucial source of funding for the Nigerian government. However, taxpayer noncompliance poses a significant obstacle to optimising these revenues. To address this challenge, the government has implemented aggressive tax reforms aimed at simplifying tax administration and fostering a business-friendly environment. However, a fundamental disparity exists between the interests of the government and taxpayers. While tax revenue forms the bedrock of government initiatives, companies often perceive taxes as a burden that eats away at the profits of their businesses. This conflict of interest can incentivise corporate tax avoidance, negatively impacting State Treasury receipts, as highlighted by Lestari & Nedya (2019). Therefore, this study aims to investigate the effect of audit quality on corporate tax avoidance among listed non-financial firms in Nigeria.

The main objective of this study is to examine the effect of audit quality and audit committee attributes on corporate tax avoidance of listed non-financial firms in Nigeria. Thus, the specific objectives are to:

- i. examine the effect of audit tenure on corporate tax avoidance of listed non-financial firms in Nigeria.
- ii. ascertain the effect of auditor size on corporate tax avoidance of listed non-financial firms in Nigeria.
- iii. determine the effect of audit fees on corporate tax avoidance of listed non-financial firms in Nigeria.

Based on the objectives of the study, the following hypotheses are formulated:

H01: Audit tenure has no significant effect on corporate tax avoidance of listed non-financial firms in Nigeria.

H02: Auditor size has no significant effect on corporate tax avoidance of listed non-financial firms in Nigeria.

H03: Audit fees have no significant effect on corporate tax avoidance of listed non-financial firms in Nigeria.

The study covered all 105 non-financial firms listed on the Nigerian Exchange Group (NGX) over 10 years (2014-2023). These firms include five (5) agricultural firms, six (6) firms in the conglomerate sector, eight (8) construction/real estate firms, twenty-one (21) consumer goods firms, seven (7) firms in the healthcare sector, nine (9) ICT firms, thirteen (13) industrial goods firms, four (4) natural resources firms, nine (9) oil and gas firms, and twenty-three (23) firms in the services sector.

The findings of the study are expected to contribute significantly to the existing literature on corporate tax avoidance, particularly within an agency theory framework. It expands upon previous research by examining how specific attributes of audit quality influence the board of directors' oversight of tax planning activities. The study also provides valuable insights for the management of non-financial firms to understand the role of audit quality in mitigating tax risks, which can help management develop more robust tax governance frameworks and ensure compliance with tax laws and regulations.

Therefore, the remainder of this paper consists of four sections. After the current section, section two is the literature review, section three is the methodology used in the study, section four is the findings and finally, section five is the conclusion and recommendations of the study.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The relationship between audit quality and corporate tax avoidance is an important area of study in accounting and finance. According to DeAngelo (1981), audit quality is “the market-assessed joint probability that an auditor will both discover a breach in a client’s accounting system and report the breach”. It is a widely accepted belief within the market that an auditor can identify and uncover significant misstatements and then communicate them to the relevant regulatory body. The attainment of a quality audit is achieved when the auditor successfully fulfils

all of the audit objectives and conducts their work in accordance with the established rules and standards. Therefore, audit quality is the degree to which an audit is performed according to established standards, providing reasonable assurance that a company's financial statements are free from material misstatement. This quality can significantly influence corporate behaviour, particularly in terms of tax reporting and compliance.

Several studies have been conducted to understand how audit quality affects tax avoidance, which is the practice of minimizing tax liabilities through legal means. For example, the study of Hadaming and Daito (2023) that affects tax avoidance in Indonesia revealed that tax avoidance was significantly influenced by leverage, company size, and audit quality simultaneously. Similarly, Yopie and Elivia (2022) researched a sample of non-financial firms registered on the Indonesia Stock Exchange (IDX) in the period of 2015-2019, revealing that audit quality has a significant positive effect on tax avoidance.

However, the study of Cornellia et al. (2023) found that audit quality has no significant effect on tax avoidance. The study concluded that the choice of a corporation to engage in tax avoidance is mostly driven by internal management, hence limiting the effect of external parties such as auditors connected with either big four or non-big four public accounting firms on these decisions. Using the premise of agency theory, Paramita and Fuad (2023) examined the impact of audit quality on corporate tax aggressiveness. Tax avoidance was measured by effective tax rate. Data used were collected from 132 listed firms in Indonesia from 2018 to 2021. Panel-corrected standard regressions were used to test the hypothesis. The result shows that audit quality proxied by industry specialization has a significant positive effect on tax aggressiveness. While audit quality proxied by Big4 audit firms has no significant effect on tax aggressiveness. However, the study was conducted in a country with an institutional tax setting distinctively different from what is obtainable in Nigeria.

Rizqia and Lastiati (2021) examined whether audit quality proxied with Big 4 accounting firms affects tax avoidance. The study was grounded in agency theory. The study utilized cross-sectional data of listed firms in the Indonesia and Malaysia stock exchanges for the financial year 2018. The abnormal book-tax difference was used to estimate Tax avoidance. Findings show that audit quality has a significant negative impact on tax avoidance. This implies that Big-4 accounting firms lower the level of tax avoidance by clients due to their audit competencies. The study has added to the existing literature by addressing the link between Big 4 accounting firms and tax avoidance, but the study covered one year, and the long-term effect of the relationship could not be examined. As such, this study will examine the long-term effect of audit tenure on tax avoidance.

The study of Lestari and Nedyia (2019) also examined the effect of auditor tenure on corporate tax avoidance of listed manufacturing companies in Indonesia. Results from a sample of 52 companies listed on the Indonesian Stock Exchange (IDX) for the period 2012 - 2017 revealed that auditor tenure positively affects tax avoidance practices. The longer the company is audited by the same audit firm the more tax avoidance increases. Long-standing connections between auditors and businesses foster proximity, which in turn prompts auditors to consider management interests and affects the quality of the audits that are produced. Therefore, the longer the bond between the same auditor and the company, the lower the quality of audits, and this will result in increased tax avoidance practices.

Salehi et al. (2020) examined the relationship between auditor characteristics and tax avoidance in an emerging market context. Audit tenure was among the audit characteristics variables examined. Data used were collected from a sample of 91 listed firms in Iran from 2011 to 2016. The relationship was underpinned by agency theory. OLS Result shows that audit tenure has a significant positive impact on tax avoidance. This implies the longer the auditor-client relationship, the more tendency the auditor to assist clients in reducing tax expenditure. However, the study was conducted in a jurisdiction whose corporate governance regulation is far different from what is obtained in Nigeria. Also, the period covered is far lapsed as there have been more and more reforms to the code of corporate governance.

From the perspective of agency theory, Soliman and El-Sayed (2023) studied if audit fee as a proxy of audit quality has any impact on tax avoidance. A total of 77 listed non-financial firms in Egypt were studied, with data collected from their annual reports from a period of 5 years totaling 385 firm-year observations. Tax avoidance was measured by effective tax rate. A structure equation modeling statistical approach was used to analyze the data. The result indicates that there is a significant positive relationship between audit fees and legal tax

avoidance. This implies that the higher the audit fee the higher the tendency of clients adopting legal tax avoidance practices.

Assidi and Hussainey (2020) investigated the impact of audit fees on tax aggressiveness. The study was grounded in agency theory. Effective tax rate was used to measure tax aggressiveness. Method of Generalised Moments (GMM) was used to test the hypothesis using data collected on a sample of 342 listed UK firms from 2006 to 2016. The empirical result shows that audit fees have a significant positive impact on tax aggressiveness. However, the study was conducted in a developed country with characteristics distinctively different from what is obtainable in Nigeria. Also, the period covered is far lapsed, as such this study will cover the period gap.

Ogbeide (2017) conducted a study to examine the relationship between firm characteristics and tax aggressiveness in Nigeria. Audit fees were among the variables examined. The data used were collected from the annual reports of 85 listed non-financial firms in Nigeria from 2012 to 2016. Tax aggressiveness was measured by effective tax rate. The result shows that audit fees have a significant positive impact on tax aggressiveness. The study, however, failed to use theories to underpin the conceptual relationship between audit characteristics and tax avoidance. Also, the period covered is far lapsed, as such this study will cover the period gap.

From another dimension, Nesbitt (2018) finds a negative association between tax fees paid and clients' effective tax rates, but this association becomes positive for the most tax-aggressive clients. Martinez and Lessa (2014) support this finding, showing that companies with more aggressive tax planning tend to pay higher audit fees. Hu (2018) also finds a positive correlation between tax avoidance and audit fees, particularly in non-state-owned enterprises. Chyz et al. (2023) further support the relationship, indicating that companies engaging auditors for tax planning services are more effective tax planners in terms of higher tax avoidance and lower tax risk. These findings suggest that audit fees may be influenced by the level of tax avoidance exhibited by clients.

The issue of agency problems has been a long-standing concern that has endured since the inception of joint stock companies. The pervasive presence of the agency problem across various organizational contexts has established this theory as a prominent and highly significant concept within the realms of finance and economic literature (Panda & Leepsa, 2017). According to Ma'sum et al. (2023), it is possible for managers to engage in the manipulation of annual report content to conceal instances of tax avoidance, primarily driven by personal motivations. The mitigation of conflicts of interest can be achieved through the implementation of effective governance practices, including the inclusion of independent members on board.

An agency relationship is also present between bondholders and shareholders. The primary focus of this relationship pertains to the conflict of interest that arises between bondholders and shareholders. Bondholders seek to optimize the value of a firm's debts, while shareholders aim to maximize the equity value of the firm (Brander & Poitevin, 1992). Within this particular framework, the principals, referred to as bondholders, rely on the agents, known as shareholders, to enhance the value of debt. Consequently, the principals will demand elevated interest rates to guarantee that the anticipated return from the debt matches the return derived from alternative applications of the bondholders' funds (Brander & Poitevin, 1992). Consequently, the aforementioned agency cost of debt covenant (Jensen & Meckling, 1976) may arise as a result.

Higher audit quality is generally associated with lower tax avoidance, as it helps reduce information asymmetry, mitigate agency problems, and assess fraud risks related to aggressive tax planning (Mashuri, 2023). Similarly, audit committees are responsible for overseeing financial reporting processes, internal controls, and compliance with regulations. In the context of tax avoidance, audit committees can monitor tax planning strategies to ensure they are in line with legal requirements and ethical standards, thereby reducing agency conflicts that may lead to aggressive tax avoidance practices (Tania & Mukhlisin, 2020). Therefore, agency theory will serve as the theoretical framework that underpins the relationship between audit tenure, auditor size, audit fees, and corporate tax avoidance.

METHODOLOGY, VARIABLES AND MODEL

This study employed a correlational research design within the general quantitative framework, as identified by

Creswell (2012), to test hypotheses about the cause-and-effect relationship or correlation between audit quality and corporate tax avoidance, as explored in several studies, including Ilu and Hamid (2020) and Saleh et al. (2020). The population for this research comprises one hundred and five (105) non-financial firms listed on the Nigerian Exchange Group (NGX) as of December 31, 2023. A census approach was employed to arrive at the appropriate sample. The study applied two criteria to derive an adjusted population; firstly, only those firms that reported their financial statement consistently during the period under study (2014 to 2023) will be considered. Secondly, a firm must have been listed without being delisted throughout the study period (2014 to 2023). After applying these filters, a total of fifty-six (56) non-financial firms were covered by the study. The data for this study was collected solely from secondary sources in accordance with the quantitative research framework, and multiple regression technique was adopted for data analysis.

There are two sets of variables covered by this study. These are the dependent and the explanatory (independent) variables. The dependent variable will be proxied by long-run cash effective tax rate (ETx_Rt) and the explanatory variables will be proxied by audit tenure (Aud_Tn), auditor size (Aud_Sz), and audit fees (Aud_Fs). They are presented in table 1.

Table 1 Variables Measurement

Variable	Proxy(ies)/Acronyms	Measurement	Sources	Apriori
Tax avoidance	Long-run Cash Effective Tax Rate (ETx_Rt)	Summation of cash taxes paid over a ten-year period divided by the summation of profit before tax over the same period.	Dyrenge et al. (2008), Gebhart (2017) and Aronmwan and Okaiwele (2020)	
Audit Quality	Audit Tenure (Aud_Tn)	The number of consecutive years an audit firm audits a company.	Lestari and Nedya (2019) and Kuncoro and Surjandari (2023)	Positive (+)
Audit Quality	Auditor Size (Aud_Sz)	Dummy variable taking the value 1 if the firm is audited by BIG4 and 0 otherwise.	Jihene and Moez (2019) and Cornellia et al. (2023)	Negative (+)
Audit Quality	Audit Fees (Aud_Fs)	The Log of the amount of total audit fees paid to the auditor.	Assidi and Husseiney (2020) and Soliman and El-Sayed (2023)	Negative (-)
Control	Firm Size (FS)	Natural log of year-end total assets of a company.	Islam and Hashim (2023)	

Source: Compiled by the author 2024

The following model was used to estimate the effect of the independent variables on the dependent variable:

$$ETx_Rt_{it} = \beta_0 + \beta_1 Aud_Tn_{it} + \beta_2 Aud_Sz_{it} + \beta_3 Aud_Fs_{it} + \beta_4 FS_{it} + \mu_{it}$$

Where:

ETx_Rt = Effective Tax Rate

Aud_Tn	=	Audit Tenure
Aud_Sz	=	Auditor Size
Aud_Fs	=	Audit Fees
FS	=	Firm Size
β_o	=	Constant
$\beta_1 - \beta_4$	=	Coefficient of explanatory variables
μ	=	Error term
it	=	non-financial firms and time (Panel Indicator)

FINDINGS AND DISCUSSION

Table 2 below presents the summary of the descriptive statistics which is the minimum, maximum, mean and standard deviation of the variables.

Table 2 Descriptive statistics

Variables	Mean	Std. Dev.	Min	Max
ETx_Rt	0.285	0.602	-0.820	2.899
Aud_Tn	5.416	3.203	1.000	15
Aud_Sz	0.661	0.478	0.000	1
Aud_Fs	7.271	0.564	5.603	8.824
FS	10.366	0.776	8.500	12.418

Source: Author's computations generated with STATA from annual reports and accounts of the sampled non-financial firms (2014-2023)

As indicated in Table 2, tax avoidance, which is measured as the summation of cash taxes paid over ten years divided by the summation of profit before tax over the same period, has a mean of 0.285. However, the standard deviation of 0.602 suggests substantial variability. The minimum and maximum are -0.820 and 2.899, respectively. The negative minimum reflects instances where some firms made losses during the period under review. For example, Chellarams PLC, UACN Property Development PLC, International Breweries, and Nigerian Enamelware PLC incurred cumulative losses of N1.3 billion, N24 billion, N127 billion, and N726 billion, respectively, over the 10 years under review.

Table 2 also indicated that auditor tenure had a mean value of 5 years during the study period, indicating that, on average, audit firms maintain their relationship with a company for over five years. The standard deviation of 3 years shows moderately lower variability in audit tenure across the sample. The range spans from a minimum of 1 to a maximum of 15 years, implying that while some firms change auditors frequently, others maintain long-term relationships with their audit firms. For example, Nestle Nigeria PLC and Flour Mills of Nigeria PLC maintained a relationship with KPMG for 15 years.

The table also provides additional insights concerning audit firm size (Aud_Sz), revealing an average value of 0.661. This average implies that approximately 66.1% of the sampled firms underwent audits conducted by the prominent Big 4 audit firms in Nigeria, namely KPMG, PWC, Ernst and Young, and Akintola Williams Deloitte, throughout the study period with a standard deviation of 47.8%. This indicates a moderate dominance of the Big 4 audit firms in the audit market within the sector. The range of audit firm size values, spanning from zero 0 to

one 1, signifies that the measurement of auditor size is captured by a dummy variable. This dummy variable takes on the value of one if the company is audited by a Big 4 audit firm and zero if otherwise. The discerned variability underscores the substantial influence and market dominance of these major audit firms, providing a nuanced perspective on the auditing landscape within the realm of listed non-financial firms in Nigeria.

The total audit fees paid to the auditor have a mean value of approximately ₦7.2 million. This implies that on average, firms in the sample pay significant amounts for audit services. However, the standard deviation of around 0.564 indicates a large variation in the audit fees, with some firms paying much higher or lower fees than the average. The range of audit fees is not quite broad, with the minimum fee being ₦5.6 million and the maximum ₦8.82 million.

The Firm Size (FS) likely quantifies the financial or operational scale of the firms in the dataset. The mean value is approximately 103.1 billion, indicating that, on average, the firms are quite large. The substantial standard deviation of 77.6 million highlights significant variability in firm size, indicating that while some firms are close to the mean, others are either much smaller or significantly larger. The minimum firm size is approximately 8.5 billion, and the maximum reaches around 12.4 billion.

Correlation Results

Table 3 below presents the result of the Pearson correlation analysis which was carried out to detect if a relationship exists between audit quality and corporate tax avoidance. Since zero correlation indicates the non-existence of a relationship, which is a sign of no research in the area under consideration

Table 3 Correlation Matrix

Variables	ETx_Rt	Aud_Tn	Aud_Sz	Aud_Fs	FS
ETx_Rt	1.0000				
Aud_Tn	-0.1023	1.0000			
	0.0155				
Aud_Sz	-0.3443*	0.0491	1.0000		
	0.0000	0.2465			
Aud_Fs	-0.2900*	-0.0217	-0.5657*	1.0000	
	0.0000	0.6081	0.0000		
FS	0.2133*	-0.0441	-0.4003*	-0.8766*	1.0000
	0.0000	0.2973	0.0000	0.0000	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's computations generated with STATA

Table 3 presents correlation values between dependent and independent variables and the correlation among the independent variables themselves. These values were generated from Pearson Correlation output. The table contains a correlation matrix showing the Pearson correlation coefficients between the dependent and independent variables and among the independent variables of the study.

The coefficients result from Table 3 revealed a negative and weak correlation between Effective Tax Rate (ETx_Rt), Audit tenure (Aud_Tn) ($r = -0.1023$) and Auditor Size (AuD_Sz) ($r = -0.3443$). This implies that these variables move in an opposite direction with the dependent variable Effective Tax Rate (ETx_Rt) according to the result obtained from the correlation matrix. Since the value is less than 0.4, the correlation can said to be

weak. Table 3 also revealed that there is a weak positive correlation between Effective Tax Rate (ETx_Rt) and Audit fees (Aud_Fs) ($r = 0.2900$) and Firm Size (FS) ($r = 0.2133$).

The correlations reveal that auditor size (AuD_Sz) is weakly associated with audit Audit Tenure (AuD_Tn) ($r = 0.0491$). Audit Fees (AuD_Fs) is weakly associated with Audit Tenure (AuD_Tn) ($r = -0.0217$) and moderately associated with Auditor Size ($r = -0.5657$). In line with other previous correlations so established, if the value of the correlation is greater than 0.4 and is less than 0.6 thus, the correlation is said to be moderate ($r \geq 0.6$) (Bach & Jordan, 2005).

Moreover, the relationship between the independent variables themselves is not found to be significant to the extent that one can conclude that there is multicollinearity unless the variance inflation factor and tolerance values are comparatively beyond the established rule of thumb. Thus, the variance inflation factor (VIF) and tolerance value are advanced measures for assessing multicollinearity among the regressors.

Post Estimation Tests

Before conducting the final regression, this study conducted diagnostic analysis to maintain the un-biasness of the parameters as argued by Wooldridge (2014). The diagnostic tests include: Hausman's specification test, multicollinearity test, normality test, linearity test, auto and serial correlation test and heteroscedasticity test.

Following the post-estimation tests carried out on the data, the results of Breusch-Pagan/Cook-Weisberg test for heteroskedasticity revealed that there is a presence of heteroscedasticity in the data because the probability of the chi-square is less than 5% ($\text{Prob} > \chi^2 = 0.0000$). Hence, considering a 1% level of significance, this study found sufficient evidence against the null hypothesis which said that the residual of the model is homoscedastic and thus is rejected.

The study conducted both fixed and random effect regression and then Hausman's specification test was carried out to determine appropriate model. The chi-square value for ETx_Rt and the related probability values is 5.79 and 0.2153, as shown in Table 4. This shows that the dataset does not meet the asymptotic assumption of the Hausman specification test, as a result, the random effect model was preferred.

The Lagrangian Multiplier test helps in deciding between random effects regression and pooled OLS regression. The test is conducted after running the random effects model to see if there is presence or absence of cross-sectional effect in the panel dataset. The rule is that if it is significant, random effect is the preferred model, otherwise seemingly unrelated OLS regression suffices. Based on the result of the Breusch-Pagan Langrangian multiplier test, the null hypothesis was rejected, and it was concluded that a random effect model is appropriate. This is evidenced by $\text{prob} > \chi^2 = 0.000$. Therefore, the study interpreted a random-effect regression result.

Summary of Regression Result

The summary of the regression results obtained from the fixed effects model is presented in Table 4 below:

Table 4 Random Effects Regression Results

Variables	Coefficient	Z Statistics	Z Sig
CONSTANT	-0.6022	-2.94	0.003
AuD_Tn	-0.0050	-3.81	0.000
AuD_Sz	-0.0516	-2.98	0.003
AuD_Fs	0.2268	6.57	0.000
FS	-0.0937	-3.82	0.000
R ²	0.1367		

Wald Chi2	84.49		
Prob>Chi2	0.0000		

Source: Author's computations generated with STATA

The proportion of the overall variation in the dependent variable described by the independent variables together was calculated using the cumulative R^2 of 0.1367 for the variables, which is the multiple coefficients of determination.

As a result, the independent variables in the analysis account for 13.67% of the overall variance in ETx_Rt of listed non-financial firms in Nigeria. The model in Table 4 also revealed a Wald chi2 of 84.49 with the corresponding p-value of 0.000, which indicates that the model is fit, as it is significant at 1%. Furthermore, according to the likelihood of the Wald chi2, which is significant at 1%, all the independent variables collectively in the model are significant. It means that there is a 99.9% likelihood that the association between the variables is not attributable to chance and that the regression findings can be trusted. Furthermore, it means that the study's independent variables reliably predict the study's dependent variable.

The coefficient of Audit Tenure (Aud_Tn) as revealed in Table 4 is -0.0050. This demonstrates the presence of a negative relationship, as suggested by the model. Specifically, it indicates that there is an inverse correlation between Audit Tenure and Long Run Effective Tax Rate. This statement indicates that when an audit firm is retained for a longer period, there is a chance that the company will engage in tax avoidance practices. The relationship so established is said to be statistically significant at 1% since the p-value of the z-statistics is 0.003. The p-value is less than 5% hence, the study rejects the null hypothesis that Audit Tenure has no significant effect on Corporate Tax Avoidance of listed non-financial firms in Nigeria.

The apriori expectation regarding the relationship between audit tenure and corporate tax avoidance is that longer audit tenure could result in increased levels of corporate tax avoidance. This expectation is based on the fact that extended relationships between auditors and their clients may compromise auditor independence, ultimately leading to less rigorous scrutiny of the client's accounting practices and tax strategies. According to Salehi et al (2020), long audit tenure allows auditors to gain a better understanding of the client's environment and that will serve as a launchpad for the client to engage in fraudulent financial reporting. Therefore, the longer the auditor-client relationship, the greater the possibility that the auditor will help the client to engage in aggressive tax avoidance.

Longer audit tenures can lead to a closer relationship between external auditors and managers. This will potentially erode the auditor's independence and affect their ability to challenge aggressive tax strategies. From an agency perspective, this weakens the monitoring role of auditors as agents of shareholders, allowing managers (agents) to engage in tax avoidance for their benefit, thereby increasing agency costs. Also, agency theory posits that managers may engage in opportunistic behaviours such as tax avoidance for their personal interest at the detriment of shareholders' interest (Suprapti et al., 2016). Therefore, when audit tenures are long, auditors might become lenient towards management preferences, and this would facilitate tax avoidance schemes that reduce tax expenses and increase reported income.

The coefficient of audit firm size, as shown in Table 4.10, is -0.0516, indicating a negative relationship as proposed by the model. This suggests an inverse relationship between auditor firm size and effective tax rates. Specifically, it implies that engaging larger audit firms increases the likelihood of engaging in tax avoidance practices. The relationship is statistically significant at the 5% level, with a p-value of 0.004, which is less than 5%. Therefore, this study finds sufficient evidence to reject the null hypothesis that an Audit Firm Size has no significant effect on Corporate Tax Avoidance of listed non-financial firms in Nigeria. The results aligned with the apriori expectation, which posits that larger audit firms, often referred to as the "Big Four," are expected to have a positive relationship with corporate tax avoidance, implying that firms audited by Big Four audit firms engage more in tax avoidance activities, often exploiting legal tax strategies.

This is because Big Four audit firms sometimes enable more sophisticated tax avoidance, possibly due to the

auditors' expertise in law and complex financial strategies (Shafiq et al., 2024). This finding is in line with the findings of Iazzi et al. (2022), Poon et al. (2021), Sani et al. (2022), and Marzuki and Syukur (2021) who found that in certain contexts, larger audit firms might facilitate rather than mitigate tax avoidance, suggesting that these firms may sometimes help clients develop tax avoidance strategies or increase tax aggressiveness through the provision of non-audit services.

However, the finding contradicts that of Alfandia and Putri (2023), Rizqia and Lastiati (2021), Lestari and Nedya (2019), Martinez and Hartmann (2020), and Suyonu (2018) who found that higher audit quality, often associated with larger firms like the Big Four, mitigates tax avoidance by leveraging their competencies and reducing tax aggressiveness. Their global presence and extensive client base make them highly conscious of the need to maintain their professional credibility and avoid any association with questionable tax practices that could damage their reputation. This reputation risk motivates large audit firms to enforce stricter controls and provide more rigorous scrutiny of their clients' tax strategies, leading to lower levels of tax avoidance.

Based on the findings in Table 4, it is evident that there is a positive relationship between Audit Fees and Corporate Tax Avoidance, with a coefficient of 0.2268. This suggests that there is a positive relationship between audit fees and long run cash effective tax rates. This is because higher audit fees reflect better audit quality, which results in more rigorous audits that discourage aggressive strategies. Moreover, it is also important to note that this relationship is statistically significant at the 1% level, as indicated by a p-value of 0.000 for the z-statistics. Given that the p-value is less than 1%, this provides sufficient evidence to reject the null hypothesis, which states that Audit Fees do not have a significant effect on the Corporate Tax Avoidance of listed non-financial firms in Nigeria. This result aligned with the apriori expectation, which posits that high audit fees might reflect more comprehensive audits, potentially reducing tax avoidance.

The findings support the studies of Riguen et al. (2021), Poon et al. (2021), Lestari and Nedya (2019), and Marzuki and Syukur (2021), who found that higher audit fees are linked to reduced tax avoidance, indicating that higher fees may reflect better audit quality and more thorough scrutiny. However, the findings contradict the studies of Soliman and El-Sayed (2023), Assidi and Hussainey (2020), Ogbeide (2017), Paramita and Fuad (2023), Martinez and Lessa (2014), Hu (2018), and Chyz et al. (2023) who found that higher audit fees correlate with increased tax avoidance, suggesting that higher fees might represent auditors facilitating more sophisticated tax avoidance strategies or catering to more tax-aggressive clients.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of audit quality on corporate tax avoidance of listed non-financial firms in Nigeria and found that audit quality, particularly when measured by audit tenure, Big 4 audit firms, and audit fees, inherently affects corporate tax avoidance among listed non-financial firms in Nigeria. To begin with, audit tenure is negatively related to corporate tax avoidance; the negative relationship indicates that longer audit tenure (i.e., audit-client relationships) does not typically lead to reduced tax avoidance strategies. The findings indicate that a longer audit tenure is associated with increased corporate tax avoidance, likely due to reduced auditor independence, which deteriorates over time as familiarity with clients increases. The findings suggest that longer audit tenures may compromise independence and objectivity, especially in tax matters. This is contrary to the widely held view that it enhances audit quality by providing a better understanding of the client. Also, there is a negative and statistically significant relationship between auditor size and corporate tax avoidance. This means that larger audit firms (often referred to as the Big Four Audit Firms) are associated with higher levels of tax avoidance among the companies they audit. The findings suggest that firms audited by larger audit firms are more likely to engage in aggressive tax avoidance practices, likely due to their technical expertise, complex tax structuring capabilities, and commercial mindset of prioritising client satisfaction. Bigger audit firms, such as the Big Four, may be more willing and better equipped to assist client firms in engaging in aggressive tax avoidance due to their greater technical expertise. Next, there is a significant positive relationship between audit fees and corporate tax avoidance, indicating that audit fees can enhance audit quality and thereby reduce opportunities for aggressive tax avoidance strategies.

Based on the findings of the study recommends that the Financial Reporting Council of Nigeria (FRCN) and the

Securities and Exchange Commission (SEC) should enforce mandatory auditor rotation rules by limiting auditor tenure to 5 to 7 years and also introduce a cooling-off period of 10 to 12 years before the same audit firm or its network members can be reappointed. Additionally, the Financial Reporting Council of Nigeria (FRCN) should enforce stringent rules concerning auditor independence. Audit committees should be required to evaluate the nature of non-audit services offered by the external auditor to prevent auditors from simultaneously auditing and designing tax avoidance schemes for their clients. Audit committees should also take into account not only the reputation of the Big Four audit firms but also the actual strategies promoted by these firms. Finally, the study recommends that the management of listed non-financial firms should consider audit fees as a strategic investment rather than a cost to minimise. Higher audit fees can increase stakeholder trust, improve compliance, and lower the risk of regulatory penalties.

One of the major limitations of this paper is that the model's R-squared of 0.1367 (13.67%) is quite low. This indicates that while the audit quality variables are significant, they explain only a small portion of the variation in corporate tax avoidance. Therefore, this study offers some unique avenues for future research to incorporate other important factors, such as corporate governance, ownership structure, and national culture, to build a more comprehensive model.

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